IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains, said developing method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnets therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier [[,]]; and

forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, at least one position where said brush chains of said magnetic carrier grains rise exists in a portion where an electric field formed between a facing zone where said image carrier and said developer carrier face each other has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|$$

where B is representative of $\cancel{Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ T_c denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_0 is 8.854×10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 2 (Original): The method as claimed in claim 1, wherein when the brush chains of the carrier grains rise on the developer carrier, a magnet present in said developing zone separates tips of the magnet brush from a developer layer formed on said developer carrier by the carrier grains.

Claim 3 (Original): The method as claimed in claim 1, wherein when the brush chains of the carrier grains fall down on said developer carrier, a magnet present in the developing zone causes the tips of the magnet brush join a developer layer formed on said developer carrier by the carrier grains.

Claim 4 (Currently Amended): The method as claimed in claim 1, wherein a ratio of a linear velocity ~~Vs~~ $\underline{V_{SL}}$ of said developer carrier to a linear velocity Vp of said image carrier ~~(Vs/Vp)~~ $\underline{(V_{SL}/Vp)}$ is greater than 0.9, but smaller than 4.

Claim 5 (Original): The method as claimed in claim 1, wherein development is effected by an alternating electric field formed between said image carrier and said developer carrier.

Claim 6 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnets therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier[[,]]; and

forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, at least one continuous position where said brush chains of said magnetic carrier grains rise and then fall down exists in a portion where an electric field formed between a facing zone where said image carrier and said developer carrier face each other has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A\cdot\rho_T\cdot d\cdot R)/(3B^{1/2}\cdot\varepsilon^{0}\cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A\cdot\rho_T\cdot d\cdot R\ )}{\left(3B^{\frac{1}{2}}\cdot\varepsilon_0\cdot V_{SL}\right)} \right|}$$

where B is representative of $\cancel{Tc\cdot D^3\cdot\rho_c/(100 - T_c)\cdot d^3\cdot\rho_T}$ $\underline{T_c\cdot D^3\cdot\rho_c/(100 - T_c)\cdot d^3\cdot\rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 7 (Original): The method as claimed in claim 6, wherein when the brush chains of the carrier grains rise on the developer carrier, a magnet present in said developing zone separates tips of the magnet brush from a developer layer formed on said developer carrier by the carrier grains.

Claim 8 (Original): The method as claimed in claim 6, wherein when the brush chains of the carrier grains fall down on said developer carrier, a magnet present in the developing

zone causes the tips of the magnet brush join a developer layer formed on said developer carrier by the carrier grains.

Claim 9 (Currently Amended): The method as claimed in claim 6, wherein a ratio of a linear velocity ~~Vs~~ $\underline{V_{SL}}$ of said developer carrier to a linear velocity Vp of said image carrier ~~(Vs/Vp)~~ $\underline{(V_{SL}/Vp)}$ is greater than 0.9, but smaller than 4.

Claim 10 (Original): The method as claimed in claim 6, wherein development is effected by an alternating electric field formed between said image carrier and said developer carrier.

Claim 11 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnets therein, and causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier, said magnetic carrier grains, holding said toner grains thereon, splash said toner grains toward said image carrier in a zone where an electric field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ <u>(C/kg)</u> deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ <u>(m)</u> of the toner grains, D denotes the mean grain size ~~(μm)~~ <u>(m)</u> of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ <u>the developer carrier</u>.

Claim 12 (Original): The method as claimed in claim 11, wherein the magnet brush formed in the developing zone is caused to contact said image carrier and release the toner grains from the carrier grains, and said toner grains released are splashed toward said image carrier.

Claim 13 (Original): The method as claimed in claim 11, wherein the magnet brush formed in the developing zone is caused to contact said image carrier and remove toner grains present on said image carrier.

Claim 14 (Currently Amended): The method as claimed in claim 11, wherein a ratio of a linear velocity ~~Vs~~ $\underline{V_{SL}}$ of said developer carrier to a linear velocity Vp of said image carrier ~~(Vs/Vp)~~ $\underline{(V_{SL}/Vp)}$ is greater than 0.9, but smaller than 4.

Claim 15 (Original): The method as claimed in claim 11, wherein development is effected by an alternating electric field formed between said image carrier and said developer carrier.

Claim 16 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnets therein, and causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier, a magnet brush formed by said magnetic carrier grains, holding said toner grains thereon, rub or adjoin said image carrier in a zone where an electric field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ T_c denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854×10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 17 (Original): The method as claimed in claim 16, wherein the magnet brush rubs or adjoins said image carrier to thereby remove toner grains present on said image carrier.

Claim 18 (Currently Amended): The method as claimed in claim 16, wherein a ratio of a linear velocity ~~Vs~~ V_{SL} of said developer carrier to a linear velocity Vp of said image carrier ~~(Vs/Vp)~~ (V_{SL} /Vp) is greater than 0.9, but smaller than 4.

Claim 19 (Original): The method as claimed in claim 16, wherein development is effected by an alternating electric field formed between said image carrier and said developer carrier.

Claim 20 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnets therein, and causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier, a magnet brush, consisting of said magnetic carrier grains holding said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains is formed, said toner grains are released when said brush chains rise and then fall, said magnet brush contact said image carrier to thereby splash said free toner grains toward said image carrier and said magnet brush rubs or adjoins said developer carrier in a zone where an electric field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R\ )}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|$$

where B is representative of ~~Tc·D^3·ρc/(100 − Tc)·d^3·ρT~~ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ T_c denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 21 (Original): The method as claimed in claim 20, wherein the magnet brush formed in the developing zone is caused to contact said image carrier to release the toner grains, and said magnet brush rubs or adjoins said image carrier to thereby remove toner grains present on said image carrier.

Claim 22 (Currently Amended): The method as claimed in claim 20, wherein a ratio of a linear velocity ~~Vs~~ V_{SL} of said developer carrier to a linear velocity Vp of said image carrier ~~(Vs/Vp)~~ (V_{SL} /Vp) is greater than 0.9, but smaller than 4.

Claim 23 (Original): The method as claimed in claim 20, wherein development is effected by an alternating electric field formed between said image carrier and said developer carrier.

Claim 24 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnets therein, and causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier, a magnet brush, consisting of said magnetic carrier grains holding said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains is formed, said toner grains are released when said brush chains rise and then fall and said magnet brush adjoins said image carrier in a zone where an electric field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R\ )}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$ denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 25 (Original): The method as claimed in claim 24, wherein the magnet brush formed on said developer carrier performs development without contacting said image carrier.

Claim 26 (Original): The method as claimed in claim 24, wherein when the brush chains of the carrier grains rise on the developer carrier, a magnet present in said developing zone separates tips of the magnet brush from a developer layer formed on said developer carrier by the carrier grains.

Claim 27 (Original): The method as claimed in claim 24, wherein when the brush chains of the carrier grains fall down on said developer carrier, a magnet present in the developing zone causes the tips of the magnet brush join a developer layer formed on said developer carrier by the carrier grains.

Claim 28 (Currently Amended): ~~In a~~ A device for forming an image comprising:

a developer carrier, facing an image carrier and accommodating magnets therein, and causing said developer carrier to convey a two-component type developer, which is made up of toner grains and magnetic carrier grains holding said toner grains, to a developing zone, applying an electric field between said developer carrier and said image carrier, and forming, in said developing zone[[,]];

a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains to thereby develop a latent image formed on said image carrier[[,]]; and

at least one position where said brush chains of said magnetic carrier grains rise exists in a portion where said electric field has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $T_c$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 29 (Currently Amended): ~~In a~~ A device for forming an image comprising:

a developer carrier, facing an image carrier and accommodating magnets therein, and causing said developer carrier to convey a two-component type developer, which is made up of toner grains and magnetic carrier grains holding said toner grains, to a developing zone, applying an electric field between said developer carrier and said image carrier, and forming, in said developing zone[[,]];

a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains to thereby develop a latent image formed on said image carrier[[,]]; and

at least one continuous position where said brush chains of said magnetic carrier grains rise and then fall down exists in a portion where said electric field has a strength E (V/m) expressed as:

~~$E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|$~~ $$E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(µC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $T_c$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(µm)~~ (m) of the toner grains, D denotes the mean grain size ~~(µm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 30 (Currently Amended): ~~In a~~ A device for forming an image comprising:

a developer carrier, facing an image carrier and accommodating magnets therein, and causing said developer carrier to convey a two-component type developer, which is made up of toner grains and magnetic carrier grains holding said toner grains, to a developing zone, and applying an electric field between said developer carrier and said image carrier to thereby develop a latent image formed on said image carrier, said magnetic carrier grains, holding said toner grains thereon, splash said toner grains toward said image carrier in a zone where said electric field has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(µC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $T_c$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(µm)~~ (m) of the toner grains, D denotes the mean grain size ~~(µm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier

grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 31 (Currently Amended): ~~In a~~ A device for forming an image comprising:

a developer carrier, facing an image carrier and accommodating magnets therein, and causing said developer carrier to convey a two-component type developer, which is made up of toner grains and magnetic carrier grains holding said toner grains, to a developing zone, and applying an electric field between said developer carrier and said image carrier to thereby develop a latent image formed on said image carrier[[,]]; and

a magnet brush formed by said magnetic carrier grains, holding said toner grains thereon, rub or adjoin said image carrier in a zone where said electric field has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_0 is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 32 (Currently Amended): ~~In a~~ A device for forming an image comprising:

a developer carrier, facing an image carrier and accommodating magnets therein, and causing said developer carrier to convey a two-component type developer, which is made up of toner grains and magnetic carrier grains holding said toner grains, to a developing zone, and applying an electric field between said developer carrier and said image carrier to thereby develop a latent image formed on said image carrier[[,]]; and

a magnet brush, consisting of said magnetic carrier grains holding said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains is formed, said toner grains are released when said brush chains rise and then fall and said magnet brush adjoins said image carrier in a zone where said electric field has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ T_c denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854×10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 33 (Currently Amended): ~~In a~~ A device for forming an image comprising:

a developer carrier, facing an image carrier and accommodating magnets therein, and causing said developer carrier to convey a two-component type developer, which is made up of toner grains and magnetic carrier grains holding said toner grains, to a developing zone,

and applying an electric field between said developer carrier and said image carrier to thereby develop a latent image formed on said image carrier[[,]]; and

a magnet brush, consisting of said magnetic carrier grains holding said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains is formed, said toner grains are released when said brush chains rise and then fall and said magnet brush adjoins said image carrier in a zone where said electric field has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R\ )}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 34 (Currently Amended): An image forming apparatus comprising:

a photoconductive image carrier configured to form a latent image thereon;

a charger configured to uniformly charge said image carrier;

a developing device facing said image carrier, storing toner grains and magnetic carrier grains supporting said toner grains and configured to form a toner image on said image carrier; and

an image transferring device configured to transfer the toner image from said drum to a recording medium;

wherein at least one position where brush chains formed by the magnetic carrier grains rise exists in a portion where an electric field formed between said developer carrier and said image carrier has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of $\cancel{Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ <u>(C/kg)</u> deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ <u>(m)</u> of the toner grains, D denotes the mean grain size ~~(μm)~~ <u>(m)</u> of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_0 is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ <u>the developer carrier</u>.

Claim 35 (Currently Amended): An image forming apparatus comprising:

a photoconductive image carrier configured to form a latent image thereon;

a charger configured to uniformly charge said image carrier;

a developing device facing said image carrier, storing toner grains and magnetic carrier grains supporting said toner grains and configured to form a toner image on said image carrier; and

an image transferring device configured to transfer the toner image from said drum to a recording medium;

wherein at least one continuous position where brush chains formed by said magnetic carrier grains rise and then fall down exists in a portion where an electric field formed between a facing zone where said image carrier and said developer carrier face each other has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of $\cancel{Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_0 is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 36 (Currently Amended): An image forming apparatus comprising:

a photoconductive image carrier configured to form a latent image thereon;

a charger configured to uniformly charge said image carrier;

a developing device facing said image carrier, storing toner grains and magnetic carrier grains supporting said toner grains and configured to form a toner image on said image carrier; and

an image transferring device configured to transfer the toner image from said drum to a recording medium;

wherein the magnetic carrier grains, holding the toner grains thereon, splash said toner grains toward said image carrier in a zone where an electric field formed in a facing zone, in

which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|}$ $\underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$

where B is representative of $\cancel{Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ <u>(C/kg)</u> deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ <u>(m)</u> of the toner grains, D denotes the mean grain size ~~(μm)~~ <u>(m)</u> of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ <u>the developer carrier</u>.

Claim 37 (Currently Amended): An image forming apparatus comprising:

a photoconductive image carrier configured to form a latent image thereon;

a charger configured to uniformly charge said image carrier;

a developing device facing said image carrier, storing toner grains and magnetic carrier grains supporting said toner grains and configured to form a toner image on said image carrier; and

an image transferring device configured to transfer the toner image from said drum to a recording medium;

wherein a magnet brush formed by said magnetic carrier grains, holding said toner grains thereon, rub or adjoin said image carrier in a zone where an electric field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

~~$E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon_0 \cdot V_{SL})|$~~

$$E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_0 is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 38 (Currently Amended): An image forming apparatus comprising:

a photoconductive image carrier configured to form a latent image thereon;

a charger configured to uniformly charge said image carrier;

a developing device facing said image carrier, storing toner grains and magnetic carrier grains supporting said toner grains and configured to form a toner image on said image carrier; and

an image transferring device configured to transfer the toner image from said drum to a recording medium;

wherein a magnet brush, consisting of said magnetic carrier grains holding said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains is formed, said toner grains are released when said brush chains rise and then fall, said magnet brush contact said image carrier to thereby splash said free toner grains toward said image carrier and said magnet brush rubs or adjoins said developer carrier

in a zone where an electric field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_o is 8.854×10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 39 (Currently Amended): An image forming apparatus comprising:

a photoconductive image carrier configured to form a latent image thereon;

a charger configured to uniformly charge said image carrier;

a developing device facing said image carrier, storing toner grains and magnetic carrier grains supporting said toner grains and configured to form a toner image on said image carrier; and

an image transferring device configured to transfer the toner image from said drum to a recording medium;

wherein a magnet brush, consisting of said magnetic carrier grains holding said toner grains thereon and gathering in a form of brush chains, and free toner grains to be released from said carrier grains is formed, said toner grains are released when said brush chains rise and then fall and said magnet brush adjoins said image carrier in a zone where an electric

field formed in a facing zone, in which said image carrier and said developer carrier face each other, has a strength E (V/m) expressed as:

$$\cancel{E \geq |(A \cdot \rho_T \cdot d \cdot R)/(3B^{1/2} \cdot \varepsilon^0 \cdot V_{SL})|} \qquad \underline{E \geq \left| \frac{(A \cdot \rho_T \cdot d \cdot R)}{\left(3B^{\frac{1}{2}} \cdot \varepsilon_0 \cdot V_{SL}\right)} \right|}$$

where B is representative of ~~$Tc \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T$~~ $\underline{T_c \cdot D^3 \cdot \rho_c/(100 - T_c) \cdot d^3 \cdot \rho_T}$, A denotes a mean amount of charge ~~(μC/kg)~~ (C/kg) deposited on the toner grains, ~~Tc~~ $\underline{T_c}$denotes the content of toner grains (wt%), d denotes the mean grain size ~~(μm)~~ (m) of the toner grains, D denotes the mean grain size ~~(μm)~~ (m) of the magnetic carrier grains, ρ_T denotes the specific weight (kg/m^3) of the toner grains, ρ_c denotes the specific gravity (kg/m^3) of the carrier grains, ε_0 is 8.854 x 10^{-12} (F/m), R denotes the diameter of the developer carrier, and V_{SL} denotes the linear velocity of ~~said magnetic carrier grains~~ the developer carrier.

Claim 40 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains for supporting said toner grains, said developing method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnetic field forming means therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier[[,]]; and

forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, said brush chains of said magnetic carrier grains flow in said developing zone while forming said magnet brush, and, assuming that a

potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly at a mean flight velocity of 1 m/s or below when $V_{PC} - V_{DC} = 400$ V holds.

Claim 41 (Original): The method as claimed in claim 40, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 42 (Original): The method as claimed in claim 40, wherein the free toner grains part from the carrier grains in the developing zone where said free toner grains are capable of moving toward the latent image.

Claim 43 (Original):The method as claimed in claim 40, wherein a zone where the free toner grains part from the carrier grains is controlled by said magnetic field forming means.

Claim 44 (Original): The method as claimed in claim 43, wherein the zone where the free toner grains part is positioned upstream of a closest position where said image carrier and said developer carrier are closest to each other in a direction of movement of the developer.

Claim 45 (Original): The method as claimed in claim 43, wherein the zone where the free toner grains contains a closest position where said image carrier and said developer carrier are closest to each other in a direction of movement of the developer.

Claim 46 (Original): The method as claimed in claim 40, wherein the magnet brush rubs said image carrier.

Claim 47 (Original): The method as claimed in claim 40, wherein the electric field comprises an alternating electric field.

Claim 48 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains for supporting said toner grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnetic field forming means therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier[[,]]; and

forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, said brush chains of said magnetic carrier grains flow in said developing zone while forming said magnet brush, and, assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly with a standard deviation of a flight velocity distribution of 0.51 or above when $V_{PC} - V_{DC} = 400$ V holds.

Claim 49 (Original): The method as claimed in claim 48, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 50 (Original): The method as claimed in claim 48, wherein the free toner grains part from the carrier grains in the developing zone where said free toner grains are capable of moving toward the latent image.

Claim 51 (Original): The method as claimed in claim 48, wherein a zone where the free toner grains part from the carrier grains is controlled by said magnetic field forming means.

Claim 52 (Original): The method as claimed in claim 51, wherein the zone where the free toner grains part is positioned upstream of a closest position where said image carrier and said developer carrier are closest to each other in a direction of movement of the developer.

Claim 53 (Original): The method as claimed in claim 51, wherein the zone where the free toner grains contains a closest position where said image carrier and said developer carrier are closest to each other in a direction of movement of the developer.

Claim 54 (Original): The method as claimed in claim 48, wherein the magnet brush rubs said image carrier.

Claim 55 (Original): The method as claimed in claim 48, wherein the electric field comprises an alternating electric field.

Claim 56 (Currently Amended): ~~In a~~ A method of developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains for supporting said toner grains, said method comprising:

~~by~~ depositing said developer on a developer carrier, which faces said image carrier and accommodates magnetic field forming means therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier[[,]]; and

forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, said brush chains of said magnetic carrier grains flow in said developing zone while forming said magnet brush, and, assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly with a mean flight velocity of 0.65 m/s or below when $V_{PC} - V_{DC} = 200$ V holds.

Claim 57 (Original): The method as claimed in claim 56, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 58 (Original): The method as claimed in claim 56, wherein the free toner grains part from the carrier grains in the developing zone where said free toner grains are capable of moving toward the latent image.

Claim 59 (Original): The method as claimed in claim 56, wherein a zone where the free toner grains part from the carrier grains is controlled by said magnetic field forming means.

Claim 60 (Original): The method as claimed in claim 59, wherein the zone where the free toner grains part is positioned upstream of a closest position where said image carrier and said developer carrier are closest to each other in a direction of movement of the developer.

Claim 61 (Original): The method as claimed in claim 59, wherein the zone where the free toner grains contains a closest position where said image carrier and said developer carrier are closest to each other in a direction of movement of the developer.

Claim 62 (Original): The method as claimed in claim 56, wherein the magnet brush rubs said image carrier.

Claim 63 (Original): The method as claimed in claim 56, wherein the electric field comprises an alternating electric field.

Claim 64 (Currently Amended):~~In a~~ A device for developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising

a developer together with magnetic carrier grains for supporting said toner grains, said device comprising:

~~by~~ means for depositing said developer on a developer carrier, which faces said image carrier and accommodates magnetic field forming means therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier[[,]]; and

means for forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, said brush chains of said magnetic carrier grains flow in said developing zone while forming said magnet brush, and, assuming that a potential of said image carrier is V^{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly at a mean flight velocity of 1 m/s or below when $V_{PC} - V_{DC} = 400$ V holds.

Claim 65 (Original): The device as claimed in claim 64, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 66 (Currently Amended): In a device for developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains for supporting said toner grains, said device comprising:

~~by~~ means for depositing said developer on a developer carrier, which faces said image carrier and accommodates magnetic field forming means therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier, and forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, said brush chains of said magnetic carrier grains flow in said developing zone while forming said magnet brush, and, assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly with a standard deviation of a flight velocity distribution of 0.51 or above when $V_{PC} - V_{DC} = 400$ V holds.

Claim 67 (Original): The device as claimed in claim 66, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 68 (Currently Amended): In a device for developing a latent image formed on a surface of an image carrier with toner grains, ~~which constitute~~ said toner grains comprising a developer together with magnetic carrier grains for supporting said toner grains, said device comprising:

~~by~~ means for depositing said developer on a developer carrier, which faces said image carrier and accommodates magnetic field forming means therein, causing said developer carrier to convey said developer to a developing zone formed between said image carrier and said developer carrier[[,]]; and

means for forming, in said developing zone, a magnet brush consisting of said magnetic carrier grains, which hold said toner grains thereon and gather in a form of brush chains, and free toner grains to be released from said carrier grains, said brush chains of said magnetic carrier grains flow in said developing zone while forming said magnet brush, and, assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly with a mean flight velocity of 0.65 m/s or below when $V_{PC} - V_{DC} = 200$ V holds.

Claim 69 (Original): The device as claimed in claim 68, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 70 (Original): An image forming apparatus comprising:

an image carrier configured to form a latent image thereon; and

a developing device facing said image carrier and accommodating magnetic field forming means therein;

wherein said developing device comprises a developer carrier configured to convey a two-component type developer, consisting of toner grains and magnetic carrier grains for supporting said toner grains, deposited thereon to a developing zone where said developer carrier faces said image carrier to thereby form a magnet brush, which include free toner grains parted from said magnetic carrier grains, and develops the latent image with said magnet brush,

in the event of development, brush chains formed by said magnetic carrier grains flow while releasing said free toner grains,

assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly at a mean flight velocity of 1 m/s or below when $V_{PC} - V_{DC} = 400$ V holds.

Claim 71 (Original): The device as claimed in claim 70, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 72 (Original): An image forming apparatus comprising:

an image carrier configured to form a latent image thereon; and

a developing device facing said image carrier and accommodating magnetic field forming means therein;

wherein said developing device comprises a developer carrier configured to convey a two-component type developer, consisting of toner grains and magnetic carrier grains for supporting said toner grains, deposited thereon to a developing zone where said developer carrier faces said image carrier to thereby form a magnet brush, which include free toner grains parted from said magnetic carrier grains, and develops the latent image with said magnet brush,

in the event of development, brush chains formed by said magnetic carrier grains flow while releasing said free toner grains,

assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic carrier grains flowing, fly with a standard deviation of a flight velocity distribution of 0.51 or above when $V_{PC} - V_{DC} = 400$ V holds.

Claim 73 (Original): The device as claimed in claim 72, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.

Claim 74 (Original): An image forming apparatus comprising:

an image carrier configured to form a latent image thereon; and

a developing device facing said image carrier and accommodating magnetic field forming means therein;

wherein said developing device comprises a developer carrier configured to convey a two-component type developer, consisting of toner grains and magnetic carrier grains for supporting said toner grains, deposited thereon to a developing zone where said developer carrier faces said image carrier to thereby form a magnet brush, which include free toner grains parted from said magnetic carrier grains, and develops the latent image with said magnet brush,

in the event of development, brush chains formed by said magnetic carrier grains flow while releasing said free toner grains,

assuming that a potential of said image carrier is V_{PC} and that a DC component of a potential of said developer carrier is V_{DC}, said free toner grains, parted from said magnetic

carrier grains flowing, fly with a mean flight velocity of 0.65 m/s or below when $V_{PC} - V_{DC} =$ 200 V holds.

Claim 75 (Original): The device as claimed in claim 74, wherein the free toner grains are caused to move toward said image carrier, and subsequently the carrier grains are moved from said image carrier toward said image carrier and toner grains are moved from said image carrier toward said carrier grains to thereby develop the latent image.